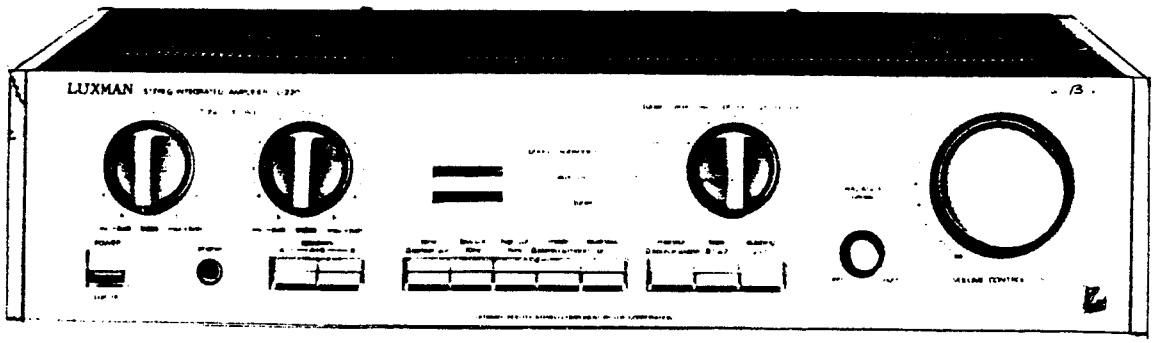
SERVICE MANUAL

DUO-BETA CIRCUIT STEREO INTEGRATED AMPLIFIER

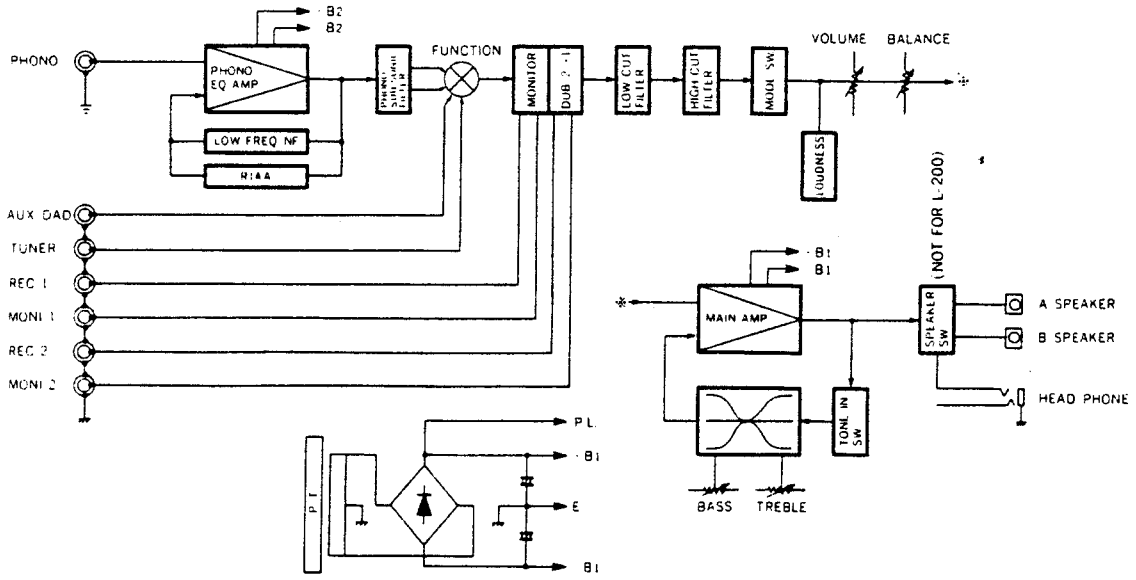
L-200
L-210
L-220



CONTENTS

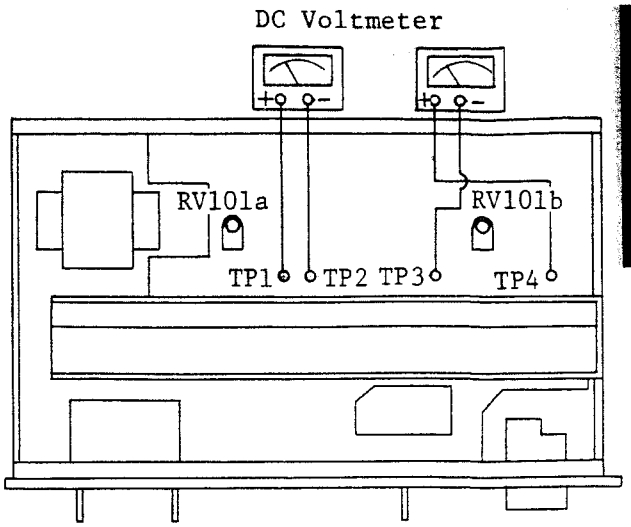
Block Diagram ---------- 1
Adjustment Procedure ---------- 2
Packing Material Parts List ---------- 2
Exploded Parts List ---------- 3 - 5
Pre Main AMP PCB Parts List ---------- 6 - 8
Tone Control PCB Parts List ---------- 8
Function SW PCB Parts List ---------- 8
VR Control PCB Parts List ---------- 9
HD Phone PCB Parts List ---------- 9
Balance Control PCB Parts List ---------- 9
Semiconductor Handling Guide ---------- 9
Schematic Diagram ----------10
Specifications ----------11

Block Diagram



L220/L-210/L-200

Adjustment Procedure

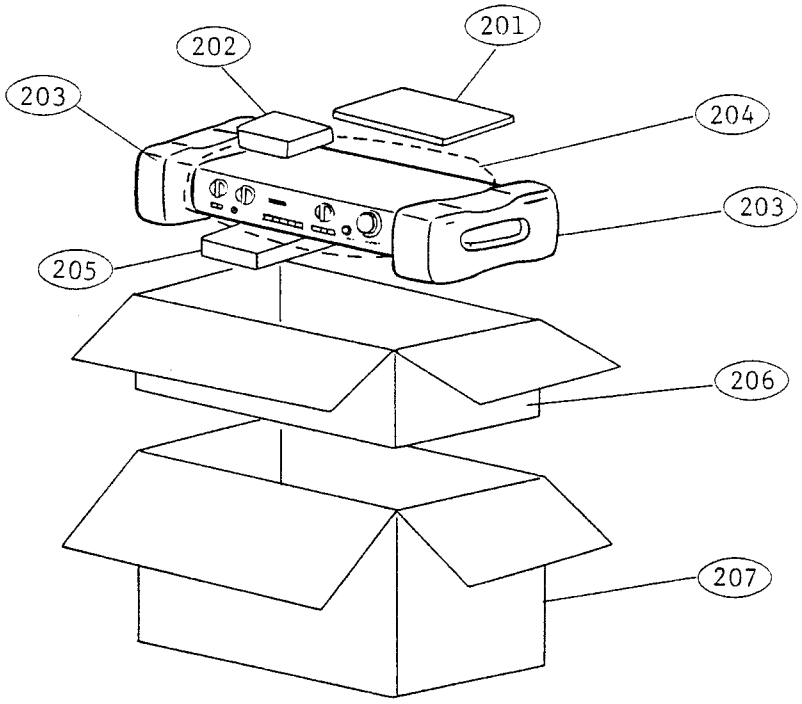


Bias (Idle) Current Adjustment

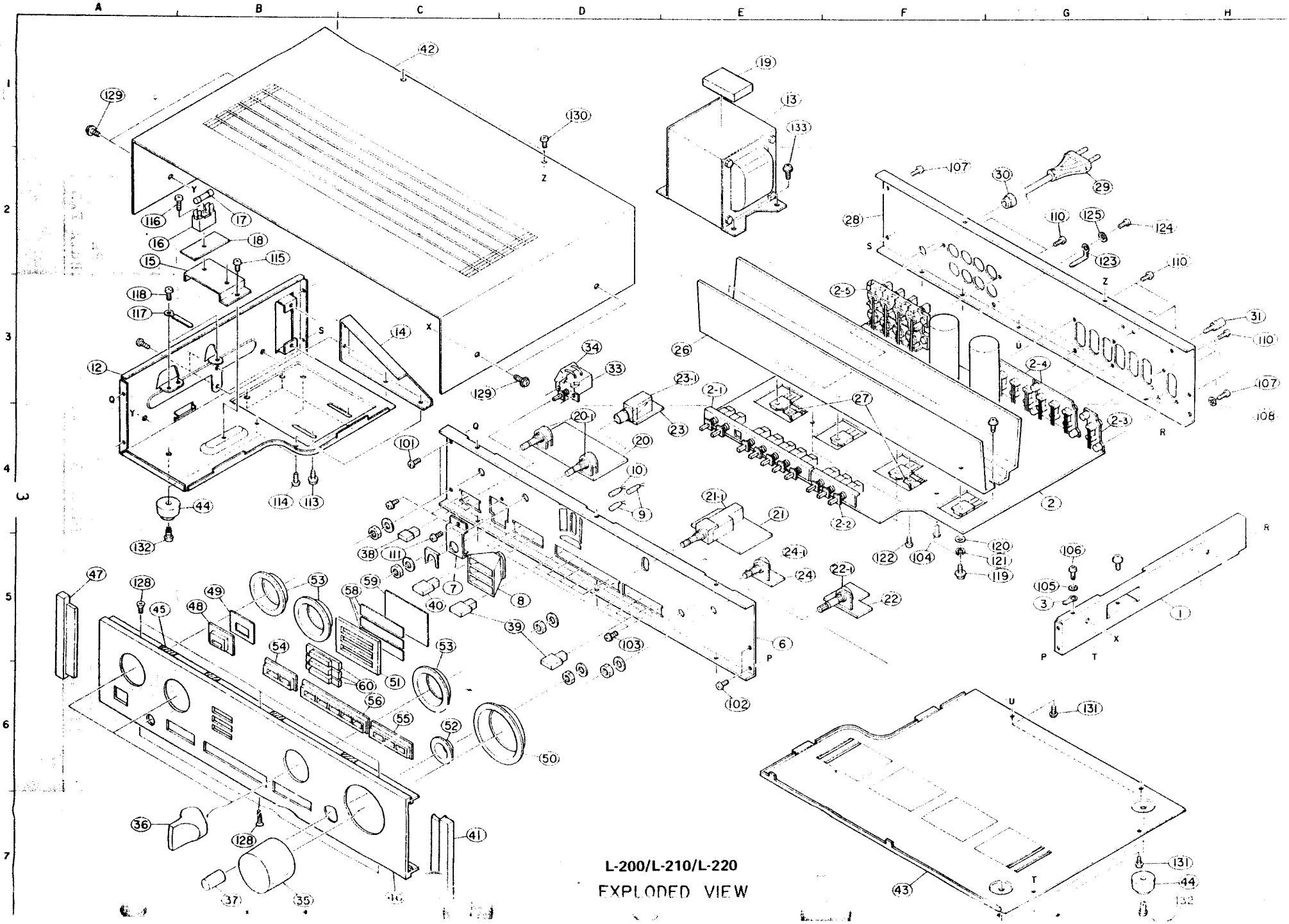
1. Connect a DC Voltmeter in between TP1 and TP2 on L-ch and or TP4 and TP3 on R-ch, Making TP1 and TP4 positive respectively.

2. Adjust the RV101a and RV101b to obtain 15mV±5mA reading on the meter.

Packing Material Parts List



Symbol No.	Stock No. L200	Stock No. L210	Stock No. L200	Description
201	ME0253-2	ME0253-2	ME0253-2	Owner's Manual
202	56A58581F01	56A58581F01	56A58581F01	Pad,PKG
203	56C56637F01	56C56637F01	56C56637F01	PKG,Tray
204	56B40230G23	56B40230G23	56B40230G23	Sack,Poly
205	56A57423F04	56A57423F04	56A57423F04	Pad,PKG
206	56C53420F35	56C53420F34	56C53420F25	Carton, PKG
207	56C53420F26	56C53420F26	56C53420F26	Carton,Bulk PKG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2-5
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2-3
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108
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23-1
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20-1
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101
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L-200/L-210/L-220
EXPLODED VIEW

Exploded Parts List

Index	Symbol No.	Stock No. L-220	Stock No. L-210	Stock No. L-200	Description	
H-5	1	07B50033F01	07B56633F01	07B56633F01	Bkt,R	
G-4	2	01V58500F04	01V58400F20	01V58100F04	Ass'y,Pre M/A PCB	(SK)
		01V58200F29	01V58500F06	01V58400F13	Ass'y,Pre M/A PCB	(EK)
			01V58800F29		Ass'y,Pre M/A PCB	(SD)
			01V59100F96		Ass'y,Pre M/A PCB	(UP)
E-3	2-1	40T56667F01	40T56667F01	40T56652F01	SW,Push	
F-3	2-2	40T56653F01	40T56653F01	40T56653F01	SW,Push SUN33 (SW101-103)	
G-4	2-3	09T57203F01	09T57203F01	09T57203F01	Plate,Phone 2P (E101)	
G-3	2-4	09T57203F02	09T57203F02	09T57203F02	Plate,Phone 6P (E102,103)	
F-3	2-5	09T51101F01	09T51101F01	09T51101F01	Terminal,SP (E104)	
G-5	3	29A41814G01	29A41814G01	29A41814G01	Lug	
E-5	6	27C56631F01	27C56631F01	27C56631F01	Chassis,Front	
C-5	7	07A57048F01	07A57048F01	07A57048F01	Bkt,Phones	
D-5	8	43A56651F01	43A56651F01	43A56651F01	Bushing,Rubber	
		91A57951F01	91A57951F01	91A57951F01	Filter 1035	
D-4	9	65T56669F01	65T56669F01	65T56669F01	Lamp,Pilot(Aux,Tuner)	
D-4	10	65T56669F02	Non Use	Non Use	Lamp,Pilot Grn (Phono)	
A-3	12	07C56632F01	07C56632F01	07C56632F01	Bkt,Trans	
E-1	13	25T56586F01	25T56586F01	25T56586F01	Trans,Power 210S	(SK)(SD)
		25T56587F01	25T56587F01	25T56587F01	Trans,Power 210E	(EK)
			25T56588F01		Trans,Power	(UP)
C-3	14	07B57267F01	07B57267F01	07B57267F01	Bkt,Trans	
A-2	15	07A56634F01	07A56634F01	07A56634F01	Bkt,Fuse	
A-2	16	09T51074F01	09T51074F01	09T51074F01	Holder,Fuse	(SK)(SD)
		09T51828F01	09T51828F01	09T51828F01	Holder,Fuse	(EK)(UP)
B-2	17	65T42077U17	65T42077U17	65T42077U17	Fuse,Semko	(SK)(SD)
		65T52486F18	65T52486F18	65T52486F18	Fuse MF61NM 2A	(EK)
			65T52486F10		Fuse	(UP)
B-2	18	43A51453F01	43A51453F01	43A51453F01	Spacer,Fuse	(SK)(SD)
E-1	19	43A51798F02	43A51798F02	43A51798F02	Spacer,1154-2	
D-4	20	01V58100F06	01V58100F06	01V58100F06	Ass'y,Tone Cont.PCB	
D-4	20-1	18T56663F01	18T56663F01	18T56663F01	VR,Rotary 50KCx2 (RV201,202)	
E-4	21	01V58100F95	01V58100F07	01V58100F07	Ass'y,Function SW PCB	
E-4	21-1	40T56664F01	40T56664F01	40T56664F01	SW,Rotary SRZ (S301)	
F-5	22	01V58100F08	01V58100F08	01V58100F08	Ass'y,VR Cont.PCB	
F-5	22-1	18T56666F01	18T56666F01	18T56666F01	VR,Rotary 250KW (RV601)	
E-4	23	01V58100F09	01V58100F09	01V58600F19	Ass'y,HD Phone PCB	
E-3	23-1	09T56010F01	09T56010F01	09T55174F01	Jack,HD Phone	
E-5	24	01V58100F10	01V58100F10	01V58100F10	Ass'y,Balance Cont.PCB	
E-5	24-1	18T56665F01	18T56665F01	18T56665F01	VR,Rotary 100KBx2 (RV401)	
E-3	26	07C56635F01	07C56635F01	07C56635F01	Heat Sink	
F-3	27	07R51146F01	07R51146F01	07R51146F01	Support,Tr.	
F-2	28	15C56636F05	15C56623F02	15C56636F01	Cover,Rear	(SK)
		15C56636F06	15C56636F04	15C56636F02	Cover,Rear	(EK)(UP)
			15C56636F03		Cover,Rear	(SD)
G-2	29	28T43812P02	28T43812P02	28T43812P02	Plug,AC Cord	(SK)(EK)(SD)
			28T55335F01		Plug,AC Cord	(UP)
G-2	30	43B41625J02	43B41625J02	43B41625J02	Support,Cord	
H-3	31	09T51075F01	09T51075F01	09T51075F01	Terminal,GND	
D-3	33	40T57580F01	40T57580F01	40T57580F01	SW,Power SDGA 1P	
D-3	34	08T57437F09	08T57437F09	08T57437F09	Cap,MP 0.01	
B-7	35	36B56627F01	36B56627F01	36B56627F01	Knob,Rotary VR C	
A-7	36	36B56626F01	36B56626F01	36B56626F01	Knob,Rotary VR B	
B-7	37	36A56625F01	36A56625F01	36A56625F01	Knob,Rotary VR A	
C-5	38	36A56639F02	36A56639F02	36A56639F02	Knob,Push 1171	

Index	Symbol No.	Stock No. L-220	Stock No. L-210	Stock No. L-200	Description	
D-5	39	36A56640F01	36A56640F01	Non Use	Knob,Push 1189	
G-5	40	36A56640F01	36A56640F01	Non Use	Knob,Push 1189	
C-7	41	07B56624F02	07B56624F02	07B56624F02	Frame,Panel-R	
C-1	42	15C56629F01	15C56629F01	15C56629F01	Cover,Top	
F-7	43	15C56630F01	15C56630F01	15C56630F01	Cover,Bottom	
B-4/F-7	44	75A52969F01	75A52969F01	75A52969F01	Pad,Trannleg	
A-5	45	14S53018F42	14S53018F42	14S53018F42	Insulator,50x5	
C-7	46	64C56623F03	64C56623F02	64C56623F01	Panel,Front	
A-5	47	07B56624F01	07B56624F01	07B56624F01	Frame,Panel Side-L	
B-5	48	61A56641F01	61A56641F01	61A56641F01	Crystal,Indicator	
B-5	49	43A56628F01	43A56628F01	43A56628F01	Spacer,Power	
D-6	50	07B56643F01	07B56643F01	07B56643F01	Frame,Knob 1140	
C-6	51	43A56644F01	43A56644F01	43A56644F01	Spacer,Frame Knob	
C-6	52	07A56645F01	07A56645F01	07A56645F01	Frame,Knob 1156	
B-5/C-5	53	07A56648F01	07A56648F01	07A56648F01	Frame,Knob	
B-5	54	07C56907F01	07A56907F01	Non Use	Frame,Knob 1153	
C-6	55	07B56646F01	07B56646F01	07B56646F01	Frame,Knob 1154	
C-6	56	07C56647F01	07C56647F01	07C56647F01	Frame,Knob 1155	
C-5	58	61A56649F01	61A56649F01	61A56649F01	Filter,Lamp	
C-5	59	43A56650F01	43A56650F01	43A56650F01	Spacer,Lamp	
C-6	60	61A56642F01	61A56642F01	61A56642F01	Crystal,Indicator	
C-4	101	03S44205G01	03S44205G01	03S44205G01	Scr,T-Tite M3x6	
E-6	102	03S44205G01	03S44205G01	03S44205G01	Scr,T-Tite M3x6	
D-5	103	03C40014G04	03C40014G04	03C40014G04	Scr,Mch.M3x6	
F-5	104	03S40036U02	03S40036U02	03S40036U02	Scr,T-Tite M3x8	
G-5	105	04S40072G16	04S40072G16	04S40072G16	Wsr,T.L.M3	
G-5	106	03C42723U01	03C42723U01	03C42723U01	Scr,Cup. M3x6	
F-2/H-3	107	03S44205G02	03S44205G02	03S44205G02	Scr,T-Tite M3x6	
H-4	108	04S40072G16	04S40072G16	04S40072G16	Wsr,T.L. M3	
G-2/H-3	110	03S40012G41	03S40012G41	03S40012G41	Scr,Tpg. M3x8	
C-5	111	03S44205G01	03S44205G01	03S44205G01	Scr,T-Tite M3x6	
E-5	112	03C40014G04	03C40014G04	03C40014G04	Scr,Mch. M3x6	
B-4	113	03S40036U01	03S40036U01	03S40036U01	Scr,T-Tite M4x8	
B-4	114	03S44205G01	03S44205G01	03S44205G01	Scr,T-Tite M3x6	
B-2	115	03S44205G01	03S44205G01	03S44205G01	Scr,T-Tite M3x6	
A-2	116	03S44205G03	03S44205G03	03S44205G03	Scr,T-Tite M3x8	
A-3	117	29C41045P02	29C41045P02	29C41045P02	Lug,W.Around	(EK)
		29C41045P03	29C41045P03	29C41045P03	Lug,W.Around	(SK)(SD)
A-3	118	03S44205G01	03S44205G01	03S44205G01	Scr,T-Tite M3x6	
G-5	119	03S40011G32	03S40011G32	03S40011G32	Scr,Mch M3x12	
G-5	120	04S40070G05	04S40070G05	04S40070G05	Wsr,3.3x8x0.5	
G-5	121	04S40071G05	04S40071G05	04S40071G05	Wsr,3.1x5.9x0.7	
F-5	122	03S40012G28	03S40012G28	03S40012G28	Scr,Tpg. M3x8	
G-2	123	29A737272-A	29A737272-A	29A737272-A	Lug,Q.Around	
H-2	124	03S44205G02	03S44205G02	03S44205G02	Scr,T-Tite M3x6	
G-2	125	04S40072G16	04S40072G16	Non Use	Wsr,T.L. M3	
A-5/B-7	128	03S44205G16	03S44205G16	03S44205G16	Scr,T-Tite M3x6	
A-1/C-3	129	03S40036U01	03S40036U01	03S40036U01	Scr,T-Tite M4x8	
D-1	130	03S44205G38	03S44205G38	03S44205G38	Scr,T-Tite M3x6	
G-6/H-7	131	03S44205G02	03S44205G02	03S44205G02	Scr,T-Tite M3x6	
A-5/H-7	132	03S44205G25	03S44205G25	03S44205G25	Scr,T-Tite M4x10	
E-1	133	03S40036U01	03S40036U01	03S40036U01	Scr,T-Tite M4x8	
	***	AC outlet				
		09T57066F01	09T57066F01	09T57066F01	Outlet,AC	(EK)(UP)
	***	Voltage Selector				
		09T51830F01	09T51830F01	09T51830F01	Plug.SW P-2120	(EK)
		09T51831F01	09T51831F01	09T51831F01	Socket. SW M-1615	(EK)
		03S44205G03	03S44205G03	03S44205G03	Scr,T-Tite M3x8	(EK)

Pre Main AMP PCB Parts List

Symbol No.	Stock No.	Description
(Switch,Push)		
SW101-103	40T56653F01	SUN33
SW104-108	40T56652F01	SUN53 (L-200)
SW104-110	40T56667F01	SUN73 (L-210/220)
(Terminal)		
E101	09T57203F01	Plate,Phono 2P
E102	09T57203F02	Plate,Phono 6P
E103	09T57203F02	Plate,Phono 6P
E104	09T51101F01	Terminal,SP
(Fuse)		
F101a,b	65T42077U18	Semko T1.6A (SK)(SD)
	65T57086F09	Fuse (EK)
F102a,b	65T42077U18	Semko T1.6A (SK)(SD)
	65T57086F09	Fuse (EK)
(Holder,Fuse)		
F101a,b	09T51410F01	Holder,Fuse
F102a,b	09T51410F01	Holder,Fuse
(Coil)		
L101a,b	24T51105F02	Coil,Choke
(Resistor,Variable)		
RV101a,b	18C42061J28	470-B
(Transistor,FET)		
Q101a,b	48T53430F01	2SA979-G
Q102a,b	48S43525F02	2SC1815Y
Q103a,b	48S43525F02	2SC1815Y
Q104a,b	48S43525F02	2SC1815Y
Q105a,b	48T56658F01	2SC1940 B,V
Q106a,b	48S43525F02	2SC1815Y
Q107a,b	48T51118F01	2SA1015Y
Q108a,b	48T56657F01	2SA899 B,V
Q109a,b	48T56660F03	2SC2824-O,Y
Q110a,b	48T56659F03	2SA1184-O,Y
Q111a,b	48T47682F02	2SC1845 F,A
Q112a,b	48T57130F03	2SC3180-O,R
Q113a,b	48T57129F03	2SA1263-O,R
Q114a,b	48T51539F01	FET,2SK117Y
Q114	48T57682F02	2SC1845F,A
Q115	48S43525F02	2SC1815Y
(Diode)		
D101	48T52741F54	HZ18-3L Zener
D102	48T52741F54	HZ18-3L Zener
D104a,b	48T51117F01	1S1553
D105a,b	48T51117F01	1S1553
D106a,b	48T51117F01	1S1553
D107a,b	48T51117F01	1S1553
R108a,b	48T40955T01	TLR124 Red LED
D109	48T52741F62	HZ24-2L Zener
D110	48T51117F01	1S1553
D111	48T44992F01	DS135D
D112	48T52741F59	HZ22-2L Zener
D113	48T44992F01	DS135D
D114	48T44992F01	DS135D
D115	48T51115F02	S3V20
D116	48T51115F02	S3V20
D117	48T51115F02	S3V20
D118	48T51115F02	S3V20
(IC)		
IC101	51T52153F01	NJM2043D-D
(Capacitor)		
C101a,b	08T42081U01	100pF Pe (EK)(SK)
	08T42081U13	Pe (L210,SD)
C102a,b	08S40805F11	0.0022uF Ce (L210,SD)
C103a,b	23T51235F24	22uF 16V El
C104a,b	23T44501P08	3.3uF 25V El
C105a,b	08S40656F22	0.056uF My

Symbol No.	Stock No.	Description
(Capacitor)		
C106a,b	08S40656F15	0.015uF My
C107	23T51234F54	220uF 25V El
C108	23T51234F54	220uF 25V El
C109a,b	08T42081U01	100pF St (L210,SD)
C110a,b	08T42081U01	100pF St (L210,SD)
C111a,b	08T42081U01	100pF St (L210,SD)
C112a,b	08T42081U01	100pF St (L210,SD)
C114a,b	08S40656F22	0.056uF My
C115a,b	08S40656F10	0.0056uF My
C116a,b	08S40656F21	0.047uF My
C117a,b	08T42081U01	100uF Pe
C118a,b	23T44501P08	3.3uF 25V El
C119a,b	08S40656F06	0.0027uF My
C120a,b	23T51234F48	100uF 50V El
C121a,b	08C42195G15	33pF 125V Pe
C122a,b	23T51235F43	100uF 10V El
C123a,b	21S40655F06	5pF Ce
C124a,b	08S40656F05	0.0022uF My
C125a,b	08S40656F05	0.0022uF My
C126a,b	08S40656F01	0.001uF My
C127a,b	08S40656F21	0.047uF My
C128	08S40656F01	0.001uF My
C129	23T51234F48	100uF 50V El
C130	23T51235F41	47uF 60V El
C131	23T51235F27	22uF 50V El
C132	23T51235F39	47uF 25V El
C133	23T51235F40	47uF 35V El
C134	23T56654F01	10000uF 50V El
C135	23T56654F01	10000uF 50V El
C136	08S44505P61	0.01uF Ce (L210,SD)
C137	08S44505P61	0.01uF Ce (L210,SD)
C138	08S44505P61	0.01uF Ce (L210,SD)
C141	23T51235F16	10uF 16V El
C142	23T51235F16	10uF 16V El
C143	23T51235F16	10uF 16V El
(Resistor)		
R101a,b	06S44593P53	330 1/4W Rd (L210,SD)
R102a,b	06S44594P08	56K 1/4W Rd
R103a,b	06S44594P08	56K 1/4W Rd
R104a,b	06S44593P81	4.7K 1/4W Rd
R105a,b	06S44594P38	1M 1/4W Rd
R106a,b	06S44593P29	33 1/4W Rd
R107a,b	06S44593P37	68 1/4W Rd
R108a,b	06S44593P57	470 1/4W Rd
R109a,b	06S44593P38	1M 1/4W Rd
R110a,b	06S44594P38	1M 1/4W Rd
R111a,b	06S44594P38	1M 1/4W Rd
R112a,b	06S44594P38	1M 1/4W Rd
R113a,b	06S44594P38	1M 1/4W Rd
R114a,b	06S44594P38	1M 1/4W Rd
R115a,b	06S44593P75	2.7K 1/4W Rd
R116a,b	06S44593P75	2.7K 1/4W Rd
R117a,b	06S44593P89	10K 1/4W Rd
R118a	06S40151T36	820K 1/4W Rd
R118b	06S44594P36	820K 1/4W Rd
R119a,b	06S44594P36	820K 1/4W Rd
R121a,b	06S44593P49	220 1/4W Rd
R122	06T55177F75	2.7K 1W Rm
R123a,b	06S44594P22	220K 1/4W Rd
R124a,b	06S44593P53	330K 1/4W Rd
R125a,b	06S44594P08	56K 1/4W Rd
R126a,b	06S44593P87	8.2K 1/4W Rd
R127a,b	06S44593P57	470 1/4W Rd
R128a,b	06S44593P87	8.2K 1/4W Rd

Pre Main AMP PCB Parts List

Symbol No.	Stock No.	Description
(Switch,Push)		
SW101-103	40T56653F01	SUN33
SW104-108	40T56652F01	SUN53 (L-200)
SW104-110	40T56667F01	SUN73 (L-210/220)
(Terminal)		
E101	09T57203F01	Plate,Phono 2P
E102	09T57203F02	Plate,Phono 6P
E103	09T57203F02	Plate,Phono 6P
E104	09T51101F01	Terminal,SP
(Fuse)		
F101a,b	65T42077U18	Semko T1.6A (SK)(SD)
	65T57086F09	Fuse (EK)
F102a,b	65T42077U18	Semko T1.6A (SK)(SD)
	65T57086F09	Fuse (EK)
(Holder,Fuse)		
F101a,b	09T51410F01	Holder,Fuse
F102a,b	09T51410F01	Holder,Fuse
(Coil)		
L101a,b	24T51105F02	Coil,Choke
(Resistor,Variable)		
RV101a,b	18C42061J28	470-B
(Transistor,FET)		
Q101a,b	48T53430F01	2SA979-G
Q102a,b	48S43525F02	2SC1815Y
Q103a,b	48S43525F02	2SC1815Y
Q104a,b	48S43525F02	2SC1815Y
Q105a,b	48T56658F01	2SC1940 B,V
Q106a,b	48S43525F02	2SC1815Y
Q107a,b	48T51118F01	2SA1015Y
Q108a,b	48T56657F01	2SA899 B,V
Q109a,b	48T56660F03	2SC2824-O,Y
Q110a,b	48T56659F03	2SA1184-O,Y
Q111a,b	48T47682F02	2SC1845 F,A
Q112a,b	48T57130F03	2SC3180-O,R
Q113a,b	48T57129F03	2SA1263-O,R
Q114a,b	48T51539F01	FET,2SK117Y
Q114	48T57682F02	2SC1845F,A
Q115	48S43525F02	2SC1815Y
(Diode)		
D101	48T52741F54	HZ18-3L Zener
D102	48T52741F54	HZ18-3L Zener
D104a,b	48T51117F01	1S1553
D105a,b	48T51117F01	1S1553
D106a,b	48T51117F01	1S1553
D107a,b	48T51117F01	1S1553
R108a,b	48T40955T01	TLR124 Red LED
D109	48T52741F62	HZ24-2L Zener
D110	48T51117F01	1S1553
D111	48T44992F01	DS135D
D112	48T52741F59	HZ22-2L Zener
D113	48T44992F01	DS135D
D114	48T44992F01	DS135D
D115	48T51115F02	S3V20
D116	48T51115F02	S3V20
D117	48T51115F02	S3V20
D118	48T51115F02	S3V20
(IC)		
IC101	51T52153F01	NJM2043D-D
(Capacitor)		
C101a,b	08T42081U01	100pF Pe (EK)(SK)
	08T42081U13	Pe (L210,SD)
C102a,b	08S40805F11	0.0022uF Ce (L210,SD)
C103a,b	23T51235F24	22uF 16V El
C104a,b	23T44501P08	3.3uF 25V El
C105a,b	08S40656F22	0.056uF My

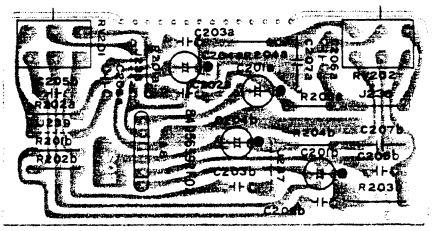
Symbol No.	Stock No.	Description
(Capacitor)		
C106a,b	08S40656F15	0.015uF My
C107	23T51234F54	220uF 25V El
C108	23T51234F54	220uF 25V El
C109a,b	08T42081U01	100pF St (L210,SD)
C110a,b	08T42081U01	100pF St (L210,SD)
C111a,b	08T42081U01	100pF St (L210,SD)
C112a,b	08T42081U01	100pF St (L210,SD)
C114a,b	08S40656F22	0.056uF My
C115a,b	08S40656F10	0.0056uF My
C116a,b	08S40656F21	0.047uF My
C117a,b	08T42081U01	100uF Pe
C118a,b	23T44501P08	3.3uF 25V El
C119a,b	08S40656F06	0.0027uF My
C120a,b	23T51234F48	100uF 50V El
C121a,b	08C42195G15	33pF 125V Pe
C122a,b	23T51235F43	100uF 10V El
C123a,b	21S40655F06	5pF Ce
C124a,b	08S40656F05	0.0022uF My
C125a,b	08S40656F05	0.0022uF My
C126a,b	08S40656F01	0.001uF My
C127a,b	08S40656F21	0.047uF My
C128	08S40656F01	0.001uF My
C129	23T51234F48	100uF 50V El
C130	23T51235F41	47uF 60V El
C131	23T51235F27	22uF 50V El
C132	23T51235F39	47uF 25V El
C133	23T51235F40	47uF 35V El
C134	23T56654F01	10000uF 50V El
C135	23T56654F01	10000uF 50V El
C136	08S44505P61	0.01uF Ce (L210,SD)
C137	08S44505P61	0.01uF Ce (L210,SD)
C138	08S44505P61	0.01uF Ce (L210,SD)
C141	23T51235F16	10uF 16V El
C142	23T51235F16	10uF 16V El
C143	23T51235F16	10uF 16V El
(Resistor)		
R101a,b	06S44593P53	330 1/4W Rd (L210,SD)
R102a,b	06S44594P08	56K 1/4W Rd
R103a,b	06S44594P08	56K 1/4W Rd
R104a,b	06S44593P81	4.7K 1/4W Rd
R105a,b	06S44594P38	1M 1/4W Rd
R106a,b	06S44593P29	33 1/4W Rd
R107a,b	06S44593P37	68 1/4W Rd
R108a,b	06S44593P57	470 1/4W Rd
R109a,b	06S44593P38	1M 1/4W Rd
R110a,b	06S44594P38	1M 1/4W Rd
R111a,b	06S44594P38	1M 1/4W Rd
R112a,b	06S44594P38	1M 1/4W Rd
R113a,b	06S44594P38	1M 1/4W Rd
R114a,b	06S44594P38	1M 1/4W Rd
R115a,b	06S44593P75	2.7K 1/4W Rd
R116a,b	06S44593P75	2.7K 1/4W Rd
R117a,b	06S44593P89	10K 1/4W Rd
R118a	06S40151T36	820K 1/4W Rd
R118b	06S44594P36	820K 1/4W Rd
R119a,b	06S44594P36	820K 1/4W Rd
R121a,b	06S44593P49	220 1/4W Rd
R122	06T55177F75	2.7K 1W Rm
R123a,b	06S44594P22	220K 1/4W Rd
R124a,b	06S44593P53	330K 1/4W Rd
R125a,b	06S44594P08	56K 1/4W Rd
R126a,b	06S44593P87	8.2K 1/4W Rd
R127a,b	06S44593P57	470 1/4W Rd
R128a,b	06S44593P87	8.2K 1/4W Rd

Symbol No.	Stock No.	Description
(Resistor)		
R129a,b	06S44594P06	47K 1/4W Rd
R130a,b	06S44593P99	27K 1/4W Rd
R131a,b	06S44593P99	27K 1/4W Rd
R132a,b	06T55175F47	180 1/2W Rm
R133a,b	06T55175F17	10 1/2W Rm
R134a,b	06T55175F27	27 1/2W Rm
R135a,b	06S44593P73	2.2K 1/4W Rd
R136a,b	06S44593P61	680 1/4W Rd
R137a,b	06T55177F55	390 1W Rm
R138a,b	06T51107F01	0.22 5Wx2 Rc
R139a,b	06S44593P69	1.5K 1/4W Rd
R140a,b	06S44593P73	2.2K 1/4W Rd
R141a,b	06S44593P73	2.2K 1/4W Rd
R142a,b	06S44593P69	1.5K 1/4W Rd
R143a,b	06T55175F17	10 1/2W Rm

Symbol No.	Stock No.	Description
R144a,b	06T55177F17	10 1W Rm
R145a,b	06T55179F57	470 2W Rm
R146	06S44593P85	6.8K 1/4W Rd
R147	06S44593P33	47 1/4W Rd
R148	06S44593P93	15K 1/4W Rd
R149	06S44594P18	150K 1/4W Rd
R150	06S44594P08	56K 1/4W Rd
R151	06S44594P08	56K 1/4W Rd
R153	06T56661F51	270 3W
R154	06T55179F75	2.7K 2W Rd
R155	06T55179F75	2.7K 2W Rd
R160a,b	06S44593P45	150 1/4W Rd (L210,SD)
R161a,b	06S44593P45	150 1/4W Rd (L210,SD)
R162a,b	06S44593P45	150 1/4W Rd (L210,SD)
R163a,b	06S44593P45	150 1/4W Rd (L210,SD)

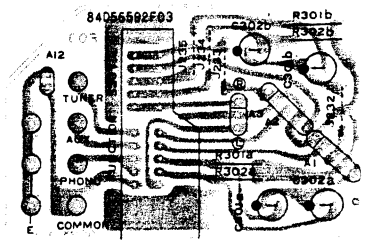
Tone Control PCB Parts List

Symbol No.	Stock No.	Description
(Variable Resistor)		
RV201	18T56663F01	Rotary 50KCx2
RV202	18T56663F01	Rotary 50KCx2
(Capacitor)		
C201a,b	23T51235F11	47uF 25V El
C202a,b	08S40656F11	0.0068uF My
C203a,b	08S40656F20	0.039uF My
C204a,b	23T51235F24	22uF 16V El
C205a,b	21S40655F31	560pF Ce
C206a,b	08S40656F22	0.056uF My
C207a,b	08S44503P30	0.27uF 50V My
(Resistor)		
R201a,b	06S44593P71	1.8K 1/4W Rd
R202a,b	06S44593P53	330 1/4W Rd
R203a,b	06S44593P87	8.2K 1/4W Rd
R204a,b	06S44593P69	1.5K 1/4W Rd



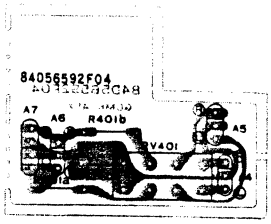
Function SW PCB Parts List

Symbol No.	Stock No.	Description
(Switch)		
S301	40T56664F01	Rotary SRZ
(Capacitor)		
C301a,b	23T44501P06	2.2uF 35V El
C302a,b	23T44501P03	0.33uF 50V El
(Resistor)		
R301a,b	06S44594P30	470K 1/4W Rd
R302a,b	06S44594P30	470K 1/4W Rd



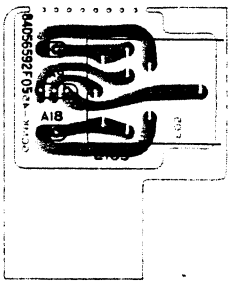
VR Control PCB Parts List

Symbol No.	Stock No.	Description
(Variable Resistor)		
RV401	18T56665F01	Rotary 100KBx2
(Resistor)		
R401a,b	06S44593P57	470 1/4W Rd



HD Phone PCB Parts List

Symbol No.	Stock No.	Description
(Jack)		
E105	09T55174F01	Head,Phone (L200)
	09T56010F01	Head,Phone (L220 & L210)

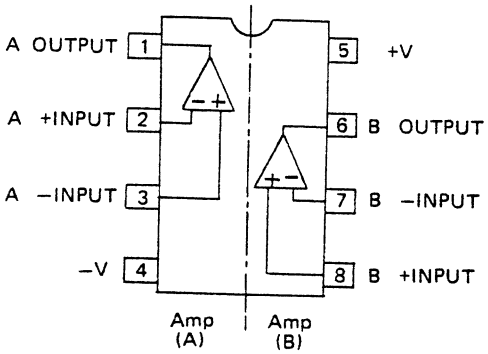


Balance Control PCB Parts List

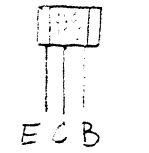
Symbol No.	Stock No.	Description
(Variable Resistor)		
RV601	18T56666F01	Rotary 250KW

IC Handling Guide (NJM2043D-D)

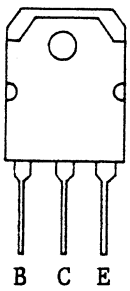
(Top View)



2SC1515

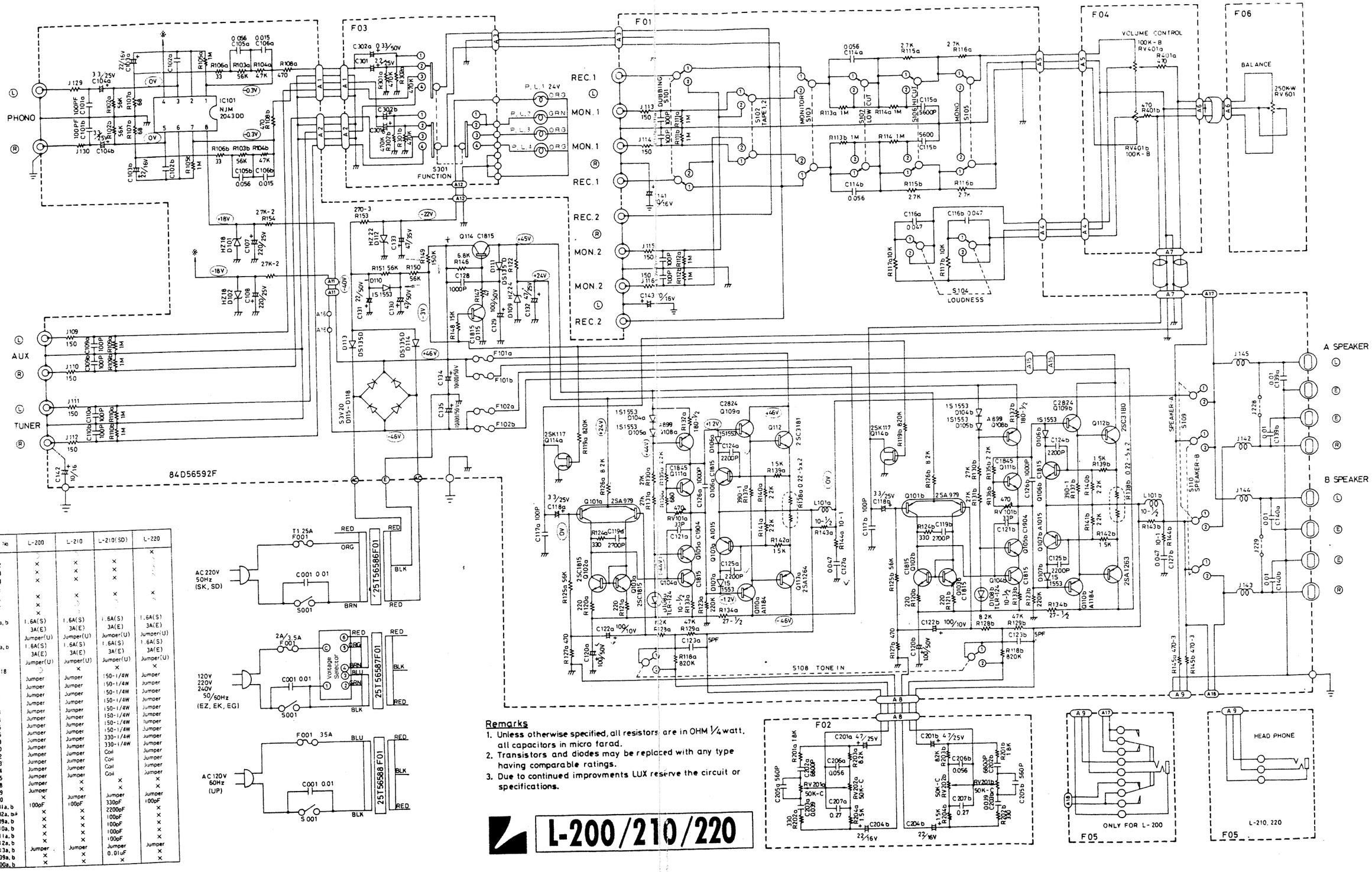


Power Transistor
2SA1263 & 2SC3180 (Complementary Pair)



Type	MAX.RATING			CHARACTERISTICS			
				hFE			
	Pc	Vceo	Ic	min	max	Ic	Vce
2SA1263	60W	-80V	-6A	55	160	-1A	-5V
2SC3180	60W	80V	6A	55	110	1A	5V

(Tc=25°C)



Symbol No	L-200	L-210	L-210(SD)	L-220
P.L.1	×	×	×	×
P.L.2	×	×	×	
P.L.3	×	×	×	
P.L.4	×			
F05				×
F07	×	×	×	
S109	×	×		
S110	×			
F101a, b	1.6A(S) 3A(E) Jumper(U)	1.6A(S) 3A(E) Jumper(U)	1.6A(S) 3A(E) Jumper(U)	1.6A(S) 3A(E) Jumper(U)
F102a, b	1.6A(S) 3A(E) Jumper(U)	1.6A(S) 3A(E) Jumper(U)	1.6A(S) 3A(E) Jumper(U)	1.6A(S) 3A(E) Jumper(U)
A17, 18		×	×	×
J109	Jumper	Jumper	150-1/4W	Jumper
J110	Jumper	Jumper	150-1/4W	Jumper
J111	Jumper	Jumper	150-1/4W	Jumper
J112	Jumper	Jumper	150-1/4W	Jumper
J113	Jumper	Jumper	150-1/4W	Jumper
J114	Jumper	Jumper	150-1/4W	Jumper
J115	Jumper	Jumper	150-1/4W	Jumper
J116	Jumper	Jumper	150-1/4W	Jumper
J129	Jumper	Jumper	330-1/4W	Jumper
J130	Jumper	Jumper	330-1/4W	Jumper
J142	Jumper	Jumper	Coil	Jumper
J143	Jumper	Jumper	Coil	Jumper
J144	Jumper	Jumper	Coil	Jumper
J145	Jumper	Jumper	Coil	×
J228	Jumper	×	×	×
J229	×	Jumper	Jumper	Jumper
J240	×	Jumper	330pF	100pF
C101a, b	100pF	100pF	2200pF	×
C102a, b	×	×	100pF	×
C109a, b	×	×	100pF	×
C110a, b	×	×	100pF	×
C111a, b	×	×	100pF	×
C112a, b	×	×	Jumper	Jumper
C113a, b	Jumper	Jumper	0.01uF	×
C139a, b	×	×	×	×
R100a, b	×	×		

Remarks

1. Unless otherwise specified, all resistors are in OHM 1/4 watt, all capacitors in micro farad.
2. Transistors and diodes may be replaced with any type having comparable ratings.
3. Due to continued improvments LUX reserve the circuit or specifications.

L-200/210/220

Specifications

Power Output:	50Wx2 (L-220)
8ohms, 1KHz	45Wx2 (L-210)
	40Wx2 (L-200)
Distortion:	0.02%
Input Sensitivity:	
Phono (MM)	1.8mV
Tuner	160mV
Aux/DAD	160mV
Monitor	160mV
Input Impedance:	
Phono (MM)	50Kohms
Tuner	40Kohms
Aux/DAD	40Kohms
Monitor	40Kohms
S/N Ratio:	
Phono (MM) (IHF-A weighted, 5mV)	90dB
Tuner (IHF-A weighted)	107dB
Aux/DAD (IHF-A weighted)	107dB
Residual Noise:	0.5mV
Filter:	
High cut	7kHz (-6dB/oct.)
Low cut	70Hz (-6dB/oct.)
Phono-Subsonic	15Hz (-6dB/oct.)
Phono (MM) Overload:	130mV
Frequency Response:	
Phono (MM)	20Hz-20kHz(within ±0.5dB)
Tuner	10Hz-100kHz(within +0, -1.5dB)
Aux/DAD	10Hz-100kHz(within +0, -1.5dB)
Monitor	10Hz-100kHz(within +0, -1.5dB)
Tone Control:	
Treble	±8dB at 10kHz
Bass	±8dB at 100Hz
Loudness:	
Volume-30dB	+8dB at 100Hz
Dimensions:	453(W) x 317(D) x 111(H)mm (17.8"x12.5"x4.4")
Weight:	
Net	6.7kgs
Gross	8.0kgs
Power Consumption:	120V 2A (CSA rated)

Specifications and appearance design subject to without notice.